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(54) **ORTHOPEDIC IMPLANT ASSEMBLY**

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(\*) Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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(56) **References Cited**

## U.S. PATENT DOCUMENTS

3,350,103	10/1967	Ahlstone
3,863,959	2/1975	Blaschke
4,017,946	4/1977	Soja
4,280,742	7/1981	Justman
4,488,543	12/1984	Tornier
4,662,461	5/1987	Garrett
4,696,290	9/1987	Steffee
5,054,347	10/1991	Johnson et al.
5,169,597	12/1992	Davidson et al.
5,275,601	1/1994	Gogolewski et al.
5,364,399	11/1994	Lowery et al.
5,372,660	12/1994	Davidson et al.
5,509,933	4/1996	Davidson et al.
5,520,690	5/1996	Errico et al.
5,534,032	7/1996	Hodorek
5,569,251	10/1996	Baker et al.
5,578,034	11/1996	Estes

5,601,553	2/1997	Trebing et al.
5,607,426	3/1997	Ralph et al.
5,643,265	7/1997	Errico et al.
5,725,588	3/1998	Errico et al.
5,735,853	4/1998	Olerud
5,785,711	7/1998	Errico et al.
5,807,396	9/1998	Ravch
5,810,819	9/1998	Errico et al.
5,843,082	12/1998	Yuan et al.

(List continued on next page.)

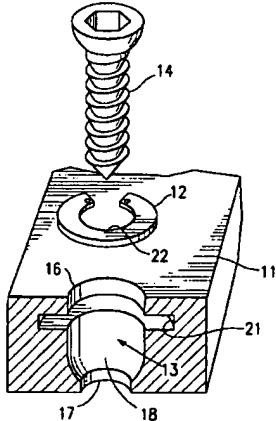
## FOREIGN PATENT DOCUMENTS

4409833 A1	10/1995	(DE)
19545612 A1	6/1997	(DE)
WO 98/17188	4/1998	(WO)
WO 98/48739	11/1998	(WO)
WO 99/09904	3/1999	(WO)

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An orthopedic implant assembly comprising a stabilizing element, a securing element which attaches the stabilizing element to the bone, and a stopping member in the stabilizing element which inhibits the securing element from loosening or backing out of the bone. The stabilizing element has at least one bore with the stopping member therein. In one embodiment, the stopping member has a reversibly expandable inner and outer diameter to allow the securing element to pass posteriorly through the stopping member, but thereafter prevent or inhibit the securing element from anteriorly backing out of the posterior section of the transverse passageway. In another embodiment, the stopping member is secured to an anterior section of the transverse passageway, and the head of the securing element generally has a compressed configuration with a diameter less than the diameter of the stopping member, in which configuration the head can pass through the stopping member, and an uncompressed configuration with a diameter larger than the diameter of the stopping member.

28 Claims, 7 Drawing Sheets



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U.S. PATENT DOCUMENTS

5,876,402	3/1999	Errico et al. .	5,989,250	11/1999	Wagner et al. .
5,879,389	3/1999	Koshino .	5,997,539	12/1999	Errico et al. .
5,904,683 *	5/1999	Pohndorf .....	6,017,344	1/2000	Errico et al. .
5,928,243	7/1999	Guyer .	6,030,389	2/2000	Wagner et al. .
5,935,133	8/1999	Wagner et al. .	6,045,579	4/2000	Hochshuler et al. .
5,961,518	10/1999	Errico et al. .	6,053,921	4/2000	Wagner et al. .
5,964,769	10/1999	Wagner et al. .	6,117,173	9/2000	Taddia et al. .

\* cited by examiner